No.



9700303

TO ALL TO WHOM THESE: PRESENTS: SHALL COME:

# Asgrob Seed Company

MUCCOS, THERE HAS BEEN PRESENTED TO THE

#### Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS  $\textbf{requirements of } LAW \textbf{in such cases made and provided have been complied with, and the title thereto$ IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE. THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW

NOW, THEREFORE THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING FLOR IMPORTING FLOR EXPORTING FLOR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT RIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT, 1542, AS DED, 7 U.S.C. 2321 ET SEO.)

SOYBEAN

'AG3002'

In Jestimonn Microsi, I have hereunto set my hand and caused the seal of the Hant Variety Frostertion Office to be affixed at the City of Washington, D.C. this thirtieth day of July in the year of our Lord one thousand nine hundred and ninety-nine,

Alan K. Walker

CAPACITY OR TITLE

DATE 5 15

Wayne Hoener

ASGROW SEED COMPANY PVP APPLICATION AG3002 MAY, 1997

#### EXHIBIT A ORIGIN AND BREEDING HISTORY OF AG3002

1993 Cross RP931172was made in Isabela, Puerto Rico. Parentage: A2722/A3431/A2835/40-3-2

1993-94 F1 and F2 generation was grown near Isabela, Puerto Rico and advanced using modified

pedigree selection.

1994 Winter F3 bulk populations were grown in Isabela, Puerto Rico and single plants pulled.

1994 Summer Single plant selections of F3 derived F4 rows were grown in progeny rows in Ames, IA.

Row F94-35199 was selected based on visual appearance and agronomic characteristics.

1994-95 RP931172 F94-35199 was increased in winter nursery.

1995 RP931172 F94-35199 was entered in a yield trial at 11 locations, were it placed 1<sup>st</sup> of

50 entries.

1996 Winter RP931172 F94-35199 was renamed AGF27603 and increased in winter production.

Breeder seed was developed from purification and roguing of F3 derived F7 seed.

1996 AGF27603 was entered in a yield trial at 14 locations across the northern corn belt. It

was renamed AG3002.

AG3002 is uniform and stable within commercially acceptable limits based on trial observations since 1994. As with any other soybean variety, variants can occur for almost any characteristic during the course of repeated sexual reproduction.

Request: Please specifically address which particular agronomic and visual characteristics were

used as selection criteria during the development of 'AG3002'.

Response: The nominated progeny row was selected based on visual appearance. Asgrow bases visual appearance selection upon uniformity for visual phenotype (i.e., flower color, pubescence color, hilum color, and pol wall color), maturity uniformity and plant height uniformity among individual plants, and resistance to Roundup herbicide (sprayed with 32 oz./acre), if variety is a RoundupReady variety. Also, we select for a visual appearance which shows a potential for high yield.

ASGROW SEED COMPANY PVP APPLICATION AG3002 Soybean MAY, 1997

## EXHIBIT B Novelty Statement Concerning AG3002 Soybean

To our knowledge, the soybean varieties that closely resemble AG3002 are AG3001, A2722 and A2833:

1. Hilum color	AG3002 AG3001 A2722 A2833	<ul><li>Black</li><li>Imperfect black</li><li>Black</li><li>Black</li></ul>
<ol> <li>Tolerance to glyphosate herbicide (RR™ gene)</li> </ol>	AG3002 AG3001 A2722 A2833	<ul><li>Present</li><li>Present</li><li>Absent</li><li>Absent</li></ul>
3. Phytophthora resistance	AG3002 AG3001 A2722 A2833	<ul><li>Rps1k</li><li>rps (no major gene)</li><li>Rps1k</li><li>Rps1k</li></ul>

EXHIBIT C (Saybeen)

2100 1 0f 4

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

## OBJECTIVE DESCRIPTION OF VARIETY SOYBEAN (Glycine max LJ

	414   Grycine max 23	
NAME OF APPLICANTIS	TEMPORARY DESIGNATION	VARIETY NAME
Asgrow Seed Company	AGF27603	AG3002
ADDRESS ISweet and No., or R.F.D. No., City, State, and Zip Cod.	et _	FOR OFFICIAL USE ONLY
2605 East Kilgore Road Kalamazoo, Michigan 49001		9700303
Choose the appropriate response which characterizes the var in your answer is fewer than the number of boxes provided. Starred characters *x are considered fundamental to an adequate information is available.	place a zero in the litzt box w	usu ummost is a or irra (see 10 1 ).
1. SEED SHAPE:    C	2 = Spherical Flattened (	L/W ratio > 1.2; L/T ratio = < 1.2) L/T ratio > 1.2; T/W > 1.2)
Z. SEED COAT COLOR: (Mature Seed)		
1 = Yellow 2 = Green 3 = 3rown	4 = Black	Specify)
L SEED COAT LUSTER: (Mature Hand Shelled Seed)		
1 = Outl ('Carsoy 75'; 'Braxton') 2 = Shiny ('Nebso	y'; 'Gægy 17')	
7 Grams per 100 seeds		
. HILUM COLOR: (Mature Seed)		
6 1 = Buff 2 = Yellow 3 = Brown 4	≠ Gray 5 = Imperfect 9lac	ck 6 = Black 7 = Other (Soccify)
. COTYLEDON COLOR: (Mature Seed)		
1 = Yallow 2 = Green		
SEED PROTEIN PEROXIDASE ACTIVITY:		
2 1 = Low 2 = High		
SEED PROTEIN ELECTROPHORETIC BAND:	· · · · · · · · · · · · · · · · · · ·	
2 1 * Type A (SP1*) 2 * Type B (SP1*)		
. HYPOCOTYL COLOR:		
	bronze band below cotyledons (*) Coker Hampton 266A*)	Moodworth": "Tracy"}
LEAFLET SHAPE:		

11. LEAFLET SIZE:	
1 = Small ('Amsoy 71'; 'A5312')	2 - Medium ("Carsoy 79"; "Gasay 17")
3 = Large ('Crawford'; 'Tracy')	
12 LEAF COLOR:	
1 = Light Green ("Weber"; "York")	2 = Medium Green ("Corsoy 79"; "Braxton")
3 = Dark Green ('Gnome'; Tracy')	
★ 12 FLOWER COLOR:	
2 1 = White 2 = Purple	3 - White with purple throat
★ 14 POB COLOR:	
1 1 = Tan 2 = Brown	3 = 8lack
* 15. PLANT PUBESCENCE COLOR:	
2 1 = Gray 2 = Brown (Tawny)	
16. PLANT TYPES:	
1 = Stender ("Sssex"; 'Amsoy 71") 3 = 8ushy ("Gnome"; 'Govan")	2 = Intermediate ('Amcor'; 'Braxton')
J - dustry ( Ghome : Govan )	
★ 17. PLANT HABIT:	
(Cooms': 'Resuren')	2 = Semi-Determinate (Will')
3 - Indeterminate ('Nebsoy': 'Improved Peli	can')
* 18. MATURITY GROUP:	
0 5 1-000 2-00 3-0	4=1 5=11 5=111 7=1V 8=V
0 13   3 - AI   10 - AII   11 - AIII	12 = IX 12 = X
	annia 7 x Seriemon
★ 19. DISEASE REACTION: (Enter 0 = Not Tested: 1 = S	USCENDING A THEORETH
BACTERIAL DISEASES:	
* 10 Bacterial Pustule (Xanthomonas phaseau var	. tajensis)
* 0 Sacterial Blight (Pzeudomonas glycinea)	
Wildfire (Preudomanas (200ci)	
* O Wildfire (Preudomanas (2004))	
FUNGAL DISEASES:	
* 0 Brown Spot (Septoria glycines)	
Frageye Leaf Soot (Cercosoora solina)	
★ 0 Race 1 0 Race 2 0 Race	Bace 4 0 Race 5 0 Other (Specify)
() Target Spot (Corynespora cassiicola)	
O Downy Mildew (Peronospara tri/atiarum vat	. manshurical
Powdery Mildew (Microsonaera diffusa)	
★ 0 Brown Stem Rot (Cepnalosparium gregatum)	,

19.	DISEASE RE	EACTIO	N: (Enter 0 = Not	Tested; 1 = Susceptible	ie: 2 = Resistanti	(Continued)			
	FUNGAL	DISEAS	ES: (Continued)		•				
*	0 Pod	l and Ste	m Slight (Diaporm	e phaseolorum var; so;	(se)				
	0 Purs	pie Seed	Stain (Cercuspora	kikuchii)					
	0 Rhia	Zoctonia	Root Rot (Rhizec	tonia solani)					
	Phys	topatho	ra Rot (Phytophtho	ora <u>megasperma</u> var. so	n( <del>aa)</del>	·		•	
*	2 Race	<b>=</b> 1	2 Race 2	2 Race 3	2 Race 4	2 Race	5 0 Race	s 2 Rac	<b>⇒</b> 7
	0 Ax	= 8	2 Flace 9	2 Other /Saeca	10, 13	, 14, 18,	21, 26	·	
	VIRAL DIS	SEASES	<b>:</b>						
	0 aud	Blight (	Tabacco Ringscot \	/ırusi			-		*. 1
	0 Yello	ow Mosa	uc (Bean Yellow Mo	isaic Virus)					
*	0 c=m	pes Mos	aic (Cawsea Chloro	itic Virusi					
	0 700	Mottle ()	Bean Pod Mottle Vi	rusi					
×		Mottle !	(Soycean Mosaic Vi	rus)					•
	NEMATOD	E DISE	ASES:						
•	Sayo	ean Cyst	t Nematode (Hetero	odera glycinesi					
*	0 Race	1	0 Race 2	1 Sace 3	O Race 4	0 Cutter	(Specify)		
	0 Lanca	् इ Nemati	ode (Haplolaimus C	Siombus)	·	•			
*	) South	nem Roc	nt Knot Nematoce (	Melaidagyne incagnit	a)				
<del>*</del>	O North	sern Roc	it Knot Nematode /	Meloidagyne Haola)		. '			•
		it Roat i	Knot Nematode (Ma	eloidogyne arenana)					
. [	Renite	orm Nen	natode ( <i>Rotylenenu</i>	ulus reniformis)					
į Į	0 OTHE	ER OISE	ASE NOT ON FOR	IM (Specify):					
		····							
20. 21	HYSIOLOGIC	TAL RES	SPONSES: (Enter (	0 = Not Tested; 1 = Su	iscaptible; 2 = Resi	stant)		•	
* [	1 iran C	Chlorosis	on Calcareous Soil						
	0 Other	1Soccity	1		·			· · · · · · · · · · · · · · · · · · ·	
21. IN	SECT REAC	TION:	Enter G = Not Test	ed: 1 = Susceptible; 2	≠ Resistant)				<del> </del>
	0 Mexica	an Bean	Beetle (Epilacnna v.	anvestisi					
[	O Potato	Leaf Ho	opper (Empoasca la	bael .	2 ·				•
	O Other	(Specify	J						
22. IN	DICATE WHI	ICH VA	RIETY MOST CLO	SELY RESEMBLES	THAT SUBMITTE	D,			
	CHARACTER			OF VARIETY	<u> </u>	IACTER	, NAV	AE OF VARIETY	<u> </u>
	nt Shape	. [	A2722			it Luster	A2722		
Lea	i Shaoe	İ	- A2722		Sced Size		A2833		
Lra	1 Color	Ī	_ A2722		Seed Sha	i0e	A2722		
Lea	f Size		<u>. A27</u> 22		Secaling	Pigmentation			

			• • • • • • • • • • • • • • • • • • •	7
¥	 HILLS CIRC CUTTER AND CHAIR	AR STANDARD VARIETY:	Littled Combataion r	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

	NO. OF			ET SIZE	SEED CONTENT		SEED SIZE	NO. SEEDS/	
VARIETY	RIEIT   C. C.	SCORE	· · · · · · · · · · · · · · · · · · ·	CM Width	CM Langth	% Protein	% Gii	SEEDS	700
AG3002	135	2.1	87.0			<u> </u>		16.7	
A2833 Name of Similar Variety	132	1.1	77.0		_			16.2	

#### PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

- 1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses, Amer. Soc., Agron, Monograph No. 16.
- 2. Suttery, B.R. and R.I. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
- 3. Hymowstz, T. 1973. Electrophoretic analysis of S&TI-A<sub>2</sub> in the USDA soybean germplasm collection. Crod Sci., 13: 420-421.
- 4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

ASGROW SEED COMPANY PVP APPLICATION AG3002 Soybean MAY, 1997

### EXHIBIT D Additional Description of AG3002 Soybean

AG3002 is a late maturity group II variety with resistance to Roundup <sup>tm</sup> herbicide. It has outstanding yield potential. AG3002 also has excellent agronomic characteristics, including good lodging resistance. AG3002 is a taller variety and the combination of its above average height and Rps1k for Phytophthora Root Rot tolerance should make it well adapted to the heavier clay soils of the midwest.

REPRODUCE LOCALLY. Include form number and date on surreproductives  U.S. DEPARTMENT OF AGRICULTURE  AGRICULTURAL MARKETING SERVICE  SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE	1974 [5 U.S.C. 552a] and the Pap	e in accordance with the Privacy Act of erwork Reduction Act (PRA) of 1995 .
EXHIBIT E STATEMENT OF THE BASIS OF OWNERSHIP	Application is required in order to certificate is to be issued (7 U.S.C until certificate is issued (7 U.S.C.	o determine il a plant variety protection 2. 2421]. Information is held confidentia 2426].
1. NAME OF APPLICANTISI	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
ASGROW SEED COMPANY	ON EXPERIMENTAL HOMOCH	
TOURIST SEED CONTINUE	AGF27603	AG3002
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)	5. TELEPHONE (include area code)	6. FAX (include area code)
7089-248-23	616-384-5548	616-384-5652
2605 East Kilgore Road	7. PVPO NUMBER 970	0303
Kalamazoo, MI 49001-1744	710	0000
8. Does the applicant own all rights to the variety? Mark an "X" in appropriate b	block. If no, please explain.	X YES NO
		,
9. Is the applicant (individual or company) a U.S. national or U.S. based company	v?	Myra Dua
9. Is the applicant (individual of company) a 0.5. National of other services of the services of country		X YES NO
the following:		(7)
10. Is the applicant the original breeder? If no, please answer the following:		X YES NO
<ul> <li>a. If original rights to variety were owned by individual(s):</li> <li>ls (are) the original breeder(s) a U.S. national(s)? If no, give name of c</li> </ul>	country	transfering
and the second s	,	YES NO
b. If original rights to variety were owned by a company:	• • •	
Is the original breeder(s) U.S. based company? If no, give name of co	untry	
11. Additional explantion on ownership (If needed, use reverse for extra space):		
PLEASE NOTE:		•
Plant variety protection can be afforded only to owners (not licensees) who meet o	one of the following criteria:	
. If the rights to the variety are owned by the original breeder, that person must of a country which affords similar protection to nationals of the U.S. for the sa	atte genus and spacess.	
<ol> <li>If the rights to the variety are owned by the company which employed the originationals of a UPOV member country, or owned by nationals of a country which genus and species.</li> </ol>	in anticos similar proceedings to the	<del></del>
. If the applicant is an owner who is not the original breeder, both the original br	reeder and the applicant must me	et one of the above criteria.
The original breeder may be the individual or company who directed final breed	ding. See Section 41(a)(2) of t	he Plant Variety Protection Act to

FORM APPROVED - OMB NO. 0581-0055

EXPIRES: 12-31-96

Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

0581-0055 and form number in your letter.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status.

[Not all prohibited bases apply to all programs]. Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotope, etc.) should contact the OUSDA Office of Communications at 12021 720-2791. TOO 1127 (TDO), USDA is an equal

Public reporting burden for this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Sand comments regarding this burden estimate or any other espect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, ORM, AG Box 7630. Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 1681-0055 and form number in your latter.